

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE REA LINEMAN

RURAL ELECTRIFICATION ADMINISTRATION

U. S. DEPARTMENT OF AGRICULTURE

Vol. V, No. 11

December, 1945

St. Louis, Mo.

LINEMAN ELECTROCUTED IN HOIST ACCIDENT

THE SITUATION

A line crew was sagging-in neutral and single phase conductor on a section of new construction.

Truck No. 2 carried two reels of wire. Both phase and neutral had been unrolled to the corner pole, as shown in sketch below. Both conductors had been pulled by Truck No. 2 to very nearly the proper sag. A lineman on the corner pole had attached his coffin hoist to the phase conductor and cut it off beyond the pole.

This span of wire passed under a 66,000-volt transmission line.

THE ACCIDENT

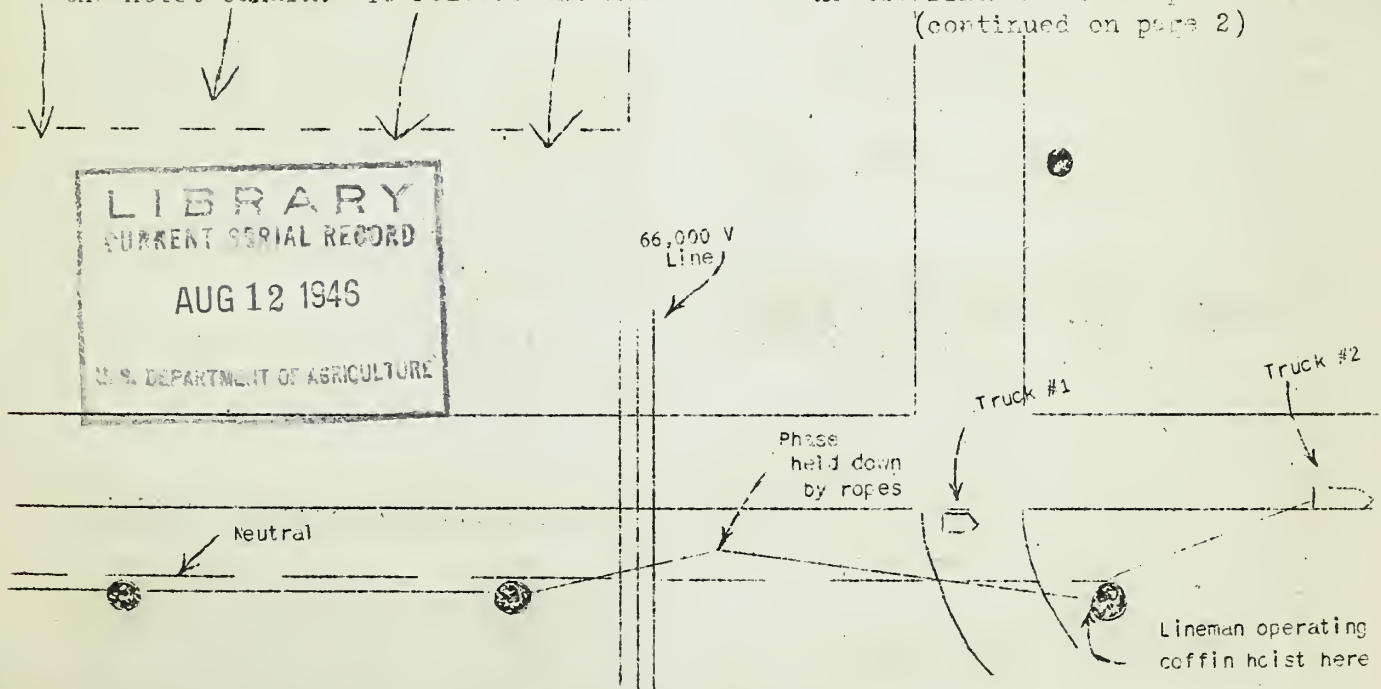
The lineman took up slack with his coffin hoist, using the full length of the hoist chain. To release the hoist

and set a new grip with it, the conductor was caught with a "come-along" attached to a rope fastened to the pole. When the hoist was released and full strain placed on the rope, the rope broke and the conductor fell to the ground.

To get the conductor back in position, a rope from Truck No. 1 was attached. It was again pulled into place and the coffin hoist (to pull the conductor up to proper tension) was attached by the lineman on the pole.

It was necessary to hold this phase down to prevent it from getting too close to the 66,000-volt line. One of the crew was doing this with the rope which Truck No. 1 used to pull up slack the second time.

As the lineman on the pole started
(continued on page 2)



Published Monthly in the interest of
Safety for Employees of REA Systems

David A. Fleming, Editor

DON'T TRUST LADY LUCK

(An Editorial)

LIFE INSURANCE has come to be accepted by most of us as something we cannot be without. We pay out good money each month for this insurance, knowing that there will be no cash return to us, but the comfort of knowing that it will help take care of our family makes it worth the price, even if we must skimp a little to make the payments.

RUBBER GLOVES and protective grounds are a form of life insurance. The only cost is a few minutes' time to put them on. The co-op furnishes both the time and the equipment.

SOMETIMES we hear men say that they have done certain jobs many times without gloves or grounds. We do not doubt their word. The fact that they did the job and are alive to tell about it is proof enough. But let us not forget that the men who tried the same jobs and did NOT get by with it are not here to tell their story.

DON'T

DON'T TRUST Lady Luck. She's a fickle gal to fool around with when it comes to rubber gloves and protective grounds.

THINK OF THE FUTURE

When you come to the conclusion that Safety and Job Training is the bunk; when you decide that you are not only indispensable but also indestructible; when you are thoroughly convinced that "It can't happen to me", make sure your financial affairs are in good order.

Things will be so much easier for you, wife and husband. --L.C. Meyer

TO ALL REA LINEMEN

From The Editor

He's a-slogging' through the mud
When it's wet and dark at night.
In a case of outage trouble,
'Cause someone's lights won't light.

He's plowing through a snow-drift
At an early morning hour.
So you can have your breakfast
That's cooked with co-op power.

In wind and rain or cold or heat,
He takes 'em as they come.
Situation often at her worst,
His tough job must be done.

So, Merry Christmas to you, men,
Wherever you may be.
Whether out a-hiking co-op poles
Or home with family

IT'S NECESSARY!!

For every piece of safety equipment that has been designed and manufactured, and for every safety rule and recommendation that has been written there has been an accident which made that equipment, rule or recommendation necessary to prevent such an accident from happening again, MAYBE TO YOU!

-----L.C. Meyer

LINEMAN ELECTROCUTED IN HOIST ACCIDENT (continued from P. 1)

to take up tension with his coffin hoist, the phase wire was seen to jerk slightly. This jerking motion freed the rope held by the man on the ground and allowed the phase to flip up and touch the 66,000, or come close enough for the 66,000 to arc across to the conductor.

All efforts failed to revive the lineman who was operating the coffin hoist on the corner pole.

The best way to prevent accidents is to form the habit of looking out for things that cause them.

SUBSTATION ACCIDENT FATAL

HIGH VOLTAGE RUNNERS 3,000-VOLT RUBBER GLOVES USELESS

The substation in which this accident occurred consisted of a steel switching structure, two transformer banks, and a brick building housing low voltage switch gear and metering equipment.

The steel switching structure supports four 33-kv airbreak switches. Two of them are for sectionalizing the station on the main 33-kv transmission line, one is on the transmission line of another cooperative, and one is on the substation bus.

On the load side of the switch on the substation bus are three s&c load-guard 33-kv liquid fuse mountings (3 fuses per mounting.) These fuse mountings are located about 20 feet from the ground above the main transformer bank of three 400-kva, 33-kv to 6.9-kv transformers. A steel ladder and wooden platform are provided for access to the load guard mounting for changing fuses.

JOB TRAINING COURSE

Oklahoma A & M College conducted a 5½ day school for job trainers in cooperation with the Oklahoma REA Safety and Job Training Committee the week of November 23.

The purpose of this school was to teach the man selected from each cooperative as job trainer how to set the training program started on his co-op and how to apply the job training procedures worked out and approved by the Advisory Committee.

Joe Willingsley, safety and job training supervisor, has developed the program on a sound basis and REA is anticipating outstanding results from Oklahoma.

A 6,9000-volt bus is provided inside the brick house with four 3-phase taps to various circuits. Oil circuit breakers with automatic reclosing devices are provided to protect the stations on the circuit. Indoor-type disconnect switches are on each phase of each circuit on the line side of the oil circuit breakers.

This is what happened:

A window, adjacent to the disconnect switches in the brick house, was left open, allowing rainwater to blow in on the equipment. A flash-over occurred at the disconnect switch insulators, causing the 33-kv s&c liquid fuses to blow. A lineman went to the station and discovered that the fuses were out. He apparently did not discover why they were out.

He opened the 33-kv airbreak switch on the high voltage bus, climbed up the steel ladder onto the wooden platform and put in new fuses. He then climbed down and closed the 33-kv airbreak, energizing the fuses and also the 6,9000 volt bus inside the brick house. A second flash-over occurred at the disconnect switch insulators causing the newly-installed fuses to blow.

He then discovered the trouble in the brick house and opened the disconnect blades on the 6.9-kv inside to prevent another flashover. Now that he knew why the fuses had gone out, he went back outside to put in new fuses and restore service. He climbed the steel ladder onto the wooden platform as before, and was electrocuted when he grasped the fuse mounting.

He had failed to open the 33-kv airbreak switch which would have de-energized the high voltage bus and fuse mountings before he climbed the ladder the last time.

(continued on page 4)

BEWARE OF GAFF WOUNDS

A gaff wound in the foot or ankle is usually not classified as a serious injury, but a gaff does make a nasty three-cornered hole. They seldom bleed very much and the danger of infection is high. Walking over ditches and through tall grass and weeds while wearing your hooks is inviting trouble.

Lawrence C. Meyer, Supervisor
Michigan REA Safety & Job Training

"HARD LUCK HARRY"

A series of "How-Not-To-Do-It" cartoons drawn especially for "The REA Lineman" by George Perkins, Jr., Manager of the Prairie Power Cooperative at Fairfield, Idaho

Watch this space for the next misadventure of "Hard Luck Harry."



DON'T GAMBLE WITH ELECTRICITY

Linemen of a Minnesota rural electric cooperative answered an outage call and found that some unknown person had removed a tree limb from across the power line before their arrival. They were much relieved when their search for the body of their self-appointed helper was unsuccessful.

We again warn our readers not to touch any object which is in contact with power lines. In the handling of hot power lines you seldom get an opportunity to make the same mistake twice.

When you find any obstruction in contact with power lines, make provisions to guard against unintentional or thoughtless contact by passers-by or livestock, and get word to our office as quickly as you can.

Handling a hot line job is a task which only experienced men should attempt. It requires a thorough knowledge of what to do, use of proper safety devices, and painstaking care in doing it.

(Reprinted from November, 1945 issue of newsletter published by Northeast Clackamas County Electric Co-op, Inc., Sandy, Oregon)

SUBSTATION ACCIDENT FATAL

(continued from page 3)

Rubber gloves marked "20,000 Volts" found on the man's hands, afforded no protection.

(Editor's Note: Stencilled figures, such as 10,000 or 20,000 volts, are test ratings of the rubber gloves, not use ratings.)

No rubber glove is recommended (regardless of how it is labelled) for more than 3,000 volts.)